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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------------|
| 10/707,781 | 01/12/2004 | Karl-Erik Olsson | 7589.150.PCUS00 | 1780 |
| 28694 7590 11/13/2009 NOVAK DRUCE + QUIGG LLP 1300 EYE STREET NW SUITE 1000 WEST TOWER WASHINGTON, DC 20005 | | | EXAMINER DAY, HERNG DER | |
| | | | ART UNIT 2128 | PAPER NUMBER |
| | | | MAIL DATE 11/13/2009 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/707,781 | Applicant(s) OLSSON, KARL-ERIK | |
| | Examiner HERNG-DER DAY | Art Unit 2128 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/10/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's RCE and Amendment and Response ("Response") to Office Action dated November 25, 2008, filed September 10, 2009.

1-1. Claims 1-28 have been canceled. Claims 29-42 have been added. Claims 29-42 are pending.

1-2. Claims 29-42 have been examined and rejected under 35 U.S.C. 112, first and second paragraphs. There is no art rejection for current claims but the Examiner will do an additional search pending correction of the 35 U.S.C. 112 issues below.

Drawings

2. The replacement drawing sheets received on September 10, 2009, incorporating the proposed drawing corrections to Figures 2 and 3 are acceptable. The objection to the drawings has been withdrawn.

Title

3. The Examiner has acknowledged without objection that the title has been amended.

Specification

4. The amended paragraphs filed on September 10, 2009, are objected to because of the following informalities. Appropriate correction is required.

4-1. It appears that the amended paragraph identified as "[0003]" in page 4 of the Response should be "[0002]".

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4-2. It appears that the amended paragraph identified as “[0062]” in page 7 of the Response should be “[0066]”.

5. The Amendment and Response filed on September 10, 2009, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is the amended paragraphs [0092], [0093], and [0094], as described in page 8 of the Response.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 29-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

7-1. The newly added independent claims 29 and 42 recite the limitation, “assessing a cumulative amount of heating-induced damage which has occurred to said rotary member using a partial damage theory” in lines 18-20 of each claim. However, the amended paragraphs [0092], [0093], and [0094], as described in page 8 of the Response for calculating the accumulated damage values D1 or D2 do not appear to have support in the original disclosure.

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Applicants are respectfully requested, in the event of an amendment to claims or *submission of new claims*, that such claims and their limitations be directly mapped to the specification, which provides support for the subject matter in the original disclosure. MPEP 714.02 recites:

“Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06. An amendment which does not comply with the provisions of 37 CFR 1.121(b), (c), (d), and (h) may be held not fully responsive. See MPEP § 714.”

7-2. The newly added independent claims 29 and 42 also recite the limitation, “b) ... the *maximum temperature* is calculated using one function if the heating parameter is less than a predefined limit value, using another function if the heating parameter is greater than said predefined limit value, and using either said one function or said another function if the heating parameter is equal to said predefined limit value” in lines 7-10 of each claim. However, as shown in the equations in paragraphs [0046], [0054], [0057], and [0060], none of the functions is used for calculating the *maximum temperature*. They are used for calculating the *maximum temperature increase ΔT* . Accordingly, the limitation as recited in step b) of claims 29 and 42 does not appear to have support in the original disclosure.

7-3. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

8. Claims 29 and 31-42 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the heating parameter to be the known Fourier constant F_0 , does not reasonably provide enablement for the heating parameter to be any constant other than the known Fourier constant F_0 . The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

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8-1. Independent claims 29 and 42 recite the limitation, “a) calculating a *heating parameter* that is based on heat-related attributes or characteristics of the rotary member and the length of time for which the rotary member is subject to a given cycle of heat-generating loading” in lines 3-5 of each claim. However, as described in the specification in paragraph [0034], “According to the present invention, a value for what is *known as a Fourier constant, Fo*, is calculated first. This Fourier constant is dependent on the material thickness and other characteristics of the brake disk, and also the time for which the brake disk is activated. More precisely, the Fourier constant, Fo , is calculated as follows: $Fo = 4 \cdot \alpha \cdot t / S^2$ ”. In other words, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims because no constant other than the known Fourier constant Fo has been disclosed.

8-2. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 29-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10-1. Claims 29 and 42 recite the limitation, “the maximum temperature is calculated ... using either said one function or said another function if the heating parameter is equal to said predefined limit value” in lines 7-10 of each claim, which is vague and indefinite because *the calculated maximum temperature* “using either said one function or said another function if the

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heating parameter is equal to said predefined limit value” may not be the same if said one function and said another function are not intersected at the location when the heating parameter equals to said predefined limit value. Clarification of the metes and bounds, via clearer claim language, is requested.

10-2. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

Applicant’s Arguments

11. Applicant argues the following:

11-1. Specification Objections

(1) “Applicant has amended various other paragraphs for clarity of presentation of the invention and/or to state explicitly features that are shown in the Figures. Applicant submits that these specification amendments do not introduce any new matter.” (Page 15, paragraph 2, Response)

11-2. Rejections Under 35 U.S.C. § 112

(2) “Precisely speaking, the rejection is moot because all pending claims have been cancelled in favor of the newly presented claims.” (Page 15, paragraph 4, Response)

(3) “Because all pending claims have been cancelled in favor of the new claims, the rejection is, strictly speaking, moot.” (Page 16, paragraph 2, Response)

11-3. Art-Based Rejections

(4) “Because all pending claims have been cancelled in favor of the new claims, the rejection is, strictly speaking, moot.” (Page 16, paragraph 3, Response)

Response to Arguments

12. Applicant's arguments have been fully considered.

12-1. Applicant's argument (1) is not persuasive. The Amendment and Response filed on September 10, 2009, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. The added material which is not supported by the original disclosure is the amended paragraphs [0092], [0093], and [0094], as described in page 8 of the Response. MPEP 714.02 recites: "Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06. An amendment which does not comply with the provisions of 37 CFR 1.121(b), (c), (d), and (h) may be held not fully responsive. See MPEP § 714." Amendments not pointing to specific support in the disclosure may be deemed as not complying with provisions of 37 C.F.R. 1.131(b), (c), (d), and (h) and therefore held not fully responsive. Generic statements such as "Applicants believe no new matter has been introduced" may be deemed insufficient.

12-2. Applicant's argument (2) is persuasive. The rejections of claims 1, 3, 5, 7, 9, 11, and 14-27 under 35 U.S.C. 112, first paragraph, in Office Action dated November 25, 2008, have been withdrawn.

12-3. Applicant's argument (3) is persuasive. The rejections of claims 1, 3, 5, 7, 9, 11, and 14-27 under 35 U.S.C. 112, second paragraph, in Office Action dated November 25, 2008, have been withdrawn.

12-4. Applicant's argument (4) is persuasive. The rejections of claims 1, 3, 5, 7, 9, 11, and 14-27 under 35 U.S.C. 102(b) or 103(a) in Office Action dated November 25, 2008, have been withdrawn.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/
Supervisory Patent Examiner, Art Unit 2128

/Herng-der Day/
Examiner, Art Unit 2128

October 26, 2009